

REMARKS/ARGUMENTS begin on page 2 of this paper.

REMARKS

Applicant respectfully requests reconsideration of the instant application on the basis of the following arguments. Claims 1 and 13 are the main, independent claims and the remaining claims are directly or indirectly dependent upon those.

The Examiner has rejected the claims as being unpatentable over U.S. Patent No. 2,508,659 by Brown (*Brown*) in view of U.S. Patent No. 5,720,309 by Brown (*Brown*), U.S. Patent No. 2,508,659 by Redmond (*Redmond*), U.S. Patent No. 5,868,858 by Creed (*Creed*), Applicant's Specification and others. It is believed that Claims 1 to 16 are clearly distinguishable over these references for the reasons that will be set forth.

As stated previously the *Brown* reference describes a known type of cleaning kite that is useful for sewer systems or other tubular systems having a comparatively smaller interior diameter. A conical member **15** *made of a flexible material* is internally unsupported between the two ends since the ribs **14** extended "over" the canvas material. A series of apertures or holes **17** through which the cleaning fluid passes form jets. (col. 2, lines 2-40)

The *Redmond* reference describes a pipe cleaning apparatus having a **single** apertured *metal* nozzle **9** that attaches to the end structurally unsupported resilient section **6c**.

Figure 7 of *Creed* teaches a known air emitting nozzle or skip ball with a plurality of outwardly diverging outlet passages. *See* col. 6, lines 1 - 17. Such skip ball is used to "control the downstream movement of the parachute member **62**. *See* col. 5, lines 62 - 67.

35 U.S.C. § 103 Grounds for Rejection

The Examiner has rejected the claims under 35 U.S.C. § 103(a) as being unpatentable over *Brown* in view of *Redmond*, *Creed*, Applicant's Specification, and others. Applicant respectfully traverses these rejections for the reasons discussed below.

As stated earlier in the prosecution of this application, Applicant's invention is directed toward solving the disadvantage that the prior cleaning plugs or kites work optimally when the entire interior of the pipe was flooded or filled with the liquid. However, this optimal situation is not always feasible defeating the effectiveness of the known cleaning plugs or kites and Applicant's invention is addressed to solve this problem.

The *Redmond* nozzleed device has a metal nozzle dangling on the end of a flexible section. Thus, the fluid flow through the nozzle of *Redmond* would have to be substantial to lift the weight of the metal nozzle segment off of the bottom of the pipe that is to be cleaned. It is further noted that while *Brown* may teach a plurality of holes or apertures 17, each of the holes 17 is formed in the unsupported canvas bag or member.

The plurality of outlets 54B taught by *Creed* in Figure 7 are used ahead of the "parachute" and are used to guide the movement of the parachute, unlike the nozzles of the present invention that are used as an outlet for the kite segment and to sweep the interior of the pipe clean with the exiting fluid.

Even if one was to insert more than one metal nozzle (and there is no suggestion of doing so in either *Brown*, *Redmond* or other cited prior art) in *Brown's* cleaning device substituting for the holes 17, the increased weight from the multiple metal nozzles would most likely sink the metal nozzle group end to the bottom of the tubular system and require even more fluid flow through the kite just to cause the lifting of the nozzle end off the bottom.

Thus, the reconstructed cleaning plug or kite combining *Brown* with *Redmond* or others would NOT work optimally unless the entire interior of the pipe was flooded or filled with the liquid and the liquid was freely flowing through the kite.

Therefore, by the claimed structure Applicant is able to achieve the advantages which have hitherto not been achievable through any adaptation of the prior art. It is therefore believed to be clear that the particular structure of Applicant is extremely important and is not a mere matter of design. It should also be noted that the *Brown* reference has been available since 1950 and the *Redmond* reference has been available since 1949. Between that time and the present, no one except Applicant has constructed a large diameter storm sewer cleaning system without the disadvantages discussed above and which are clearly set forth on the first few pages of Applicant's specification. It is certainly believed to be pertinent that no-one has achieved or anticipated Applicant's structure despite the long existing availability of the two primary references combined by the Examiner.

It is improper to use hindsight having read the Applicant's disclosure to "pick and choose" among isolated prior art references to disparage the claimed invention. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Even where an invention is, as a whole, fully disclosed by a combination of prior art elements, such elements cannot be combined to defeat a patent as obvious unless the art teaches or suggests the desirability of making the combination. ASC Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 221 U.S.P.Q. 929 (Fed. Cir. 1984). Thus, the mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F.2d 1260, U.S.P.Q.2d 1780 (Fed. Cir. 1992). Finally, it is the invention as a whole that is important. Focusing on the obviousness of substitutions and

differences, instead of on the invention as a whole, is a legally improper way to simplify the often difficult determination of obviousness. Gillette Co. v. S. C Johnson & Son, Inc., 919 F. 2d 720, 16 U.S.P.Q. 1923 (Fed. Cir. 1990).

Independent Claim 1, as amended, recites the following elements, the most pertinent to this discussion being presented in bold type for the convenience of the Examiner:

1. A **large scale cleaning plug** adaptable to be placed within an interior passageway of a tubular system for containing a fluid, the plug comprising:

a generally conically shaped element having a first end and an opposite second end; said first end and said second end having a width selected to fit within the interior passageway of the tubular system;

securing means connected to the conical element in proximity to the first end for controllably securing the conical element in desired positions within the interior passageway; and,

a nozzle assembly mounted with the second end of the conical element; said nozzle assembly having a **plurality** of nozzle bodies **extending from a plate preventing appreciable fluid flow therethrough** as the fluid flows relative to the first end of the conical element and toward the second end and permitting a desired fluid flow of the tubular system fluid through an exit opening of the nozzle bodies.

Applicant respectfully submits that the combination of *Brown* with *Redmond*, *Creed*, or Applicant's Specification does not disclose, teach, or suggest a "nozzle assembly having *a plurality of nozzle bodies extending from a plate preventing appreciable fluid flow therethrough* as the fluid flows relative to the first end of the conical element and toward the second end and permitting a desired fluid flow of the tubular system fluid through an exit opening of the nozzle bodies" as recited by amended Claim 1 or 13. Even if *Brown* could be

combined with *Redmond*, *Creed*, or the prior art of Applicant's Specification, the combination provides *no teaching* of such "plurality of nozzle bodies **extending from a plate preventing appreciable fluid flow therethrough** as the fluid flows relative to the first end of the conical element and toward the second end and permitting a desired fluid flow of the tubular system fluid through an exit opening of the nozzle bodies." Therefore, both Claim 1 and 13 are not obvious in light of the cited art and Applicant respectfully submits that this rejection should now be withdrawn.

Dependent Claims 2-12 and 14-16 that depend from independent Claim 1 or 13 are also not made obvious by *Brown* in view of *Redmond* or others because they include the limitations of Claim 1 or 13 and add additional elements that further distinguish the art. Therefore, Applicant respectfully requests that Claims 1-16 be allowed.

Finally, in order to establish a prima facie case of obviousness, the prior art teachings must be sufficient to *suggest making the substitution or modification necessary* to make the claimed invention to one of ordinary skill in the art, In re Lalu, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1984), in the absence of applicant's own disclosure. See also, In re Laskowski, 871 F.2d 115, 117, 10 USPQ2d 1397, 1398-99 (Fed. Cir. 1989) and Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir. 1985). The motivation to make a specific structure

"is not abstract, but practical, and is always related to the properties or uses one skilled in the art would expect the [structure] to have, if made."

In re Gyurik, 596 F.2d 1012, 1018, 201 USPQ 552, 557 (CCPA 1979). See also Fromson v. Advance Offset Plate, Inc., 755 F.2d 1549, 1556, 225 USPQ 26, 31 (Fed. Cir. 1985) ("Critical

inquiry is whether ‘there is something in the prior art as a whole to suggest the desirability, and, thus, the obviousness, of making the combination’”).

There must have been a reason apparent at the time the invention was made to a person of ordinary skill in the art for applying the teachings at hand to effect the modification necessary to reach the claimed invention in the manner proposed or the use of the teaching as evidence of obviousness will entail prohibited hindsight. Graham v. John Deere of Kansas City, 383 U.S. 1, 148 USPQ 459 (1966), and In re Nomiya, 509 F.2d 566, 184 USPQ 607 (CCPA 1975).

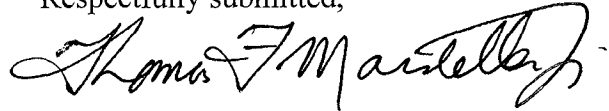
Here there is lacking the requisite suggestion in these prior art disclosures that would have motivated the artisan to do what the Examiner has characterized as being an obvious combination.

Conclusion

Applicant has made an earnest attempt to place this case in condition for allowance. In light of the previous amendments and remarks set forth above, Applicant respectfully requests reconsideration and allowance of Claims 1-16.

If there are matters which can be discussed by telephone to further the prosecution of this Application, Applicant invites the Examiner to call the attorney at the number listed below at the Examiner's convenience.

Respectfully submitted,

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